COMMON GEOMETRIC PRACTICES
RURAL LOCAL ROADS

		TRAFFIC VOLUME					
	TERRIAN	UNDER 50 A.D.T.	50-250 A.D.T.	250-400 A.D.T.	400-1500 A.D.T.	1500-2000 A.D.T.	OVER 2000 A.D.T.
MINIMUM DESIGN SPEED (M.P.H.) (6) (7)	LEVEL	30		40	50		
	ROLLING	20	30		40		
	MOUNTAIN	20			30		

	DESIGN SPEED	UNDER 400 A.D.T.	400-1500 A.D.T.	1500-2000 A.D.T.	OVER 2000 A.D.T.
PAVEMENT WIDTH (FEET) (4) (8)	15 MPH	18	20 (9)	20	22
	20 MPH			22	24 (11)
	25 MPH				
	30 MPH				
	40 MPH				
	45 MPH	20	22		
	50 MPH				
	55 MPH	22		24 (11)	
	60 MPH				
MIN. GRADED SHOULDER WIDTH (FEET) (5)	ALL SPEEDS	2	5 (9) (10)	6	8
MIN. CLEAR ROADWAY WIDTH OF NEW AND RECONSTRUCTED BRIDGES	ALL SPEEDS	APPROACH ROADWAY WIDTH			

MINIMUM RADIUS (FEET)	DESIGN SPEED	eMAX. 4%	eMAX. 6%	eMAX. 8%
	20 MPH	125	115	105
	25 MPH	205	185	170
	30 MPH	300	275	250
	35 MPH	420	380	350
	40 MPH	565	510	465
	45 MPH	730	660	600
	50 MPH	930	835	760

NORMAL PAVEMENT CROSS SLOPES (3)	RATE OF CROSS SLOPE = 2%							
NORMAL SHOULDER CROSS SLOPES	EARTH = 8%				PAVED = 4%			
MAXIMUM GRADE (PERCENT)	M.P.H.	20	25	30	35	40	45	50
	LEVEL	8			7			6
	ROLLING	11			10		9	8
	MOUNTAIN	16	15	14		13	12	10
MINIMUM STOPPING SIGHT DISTANCE (1)	(FEET)	115	155	200	250	305	360	425
MINIMUM PASSING SIGHT DISTANCE (2)	(FEET)	710	900	1090	1280	1470	1625	1835

(1) MINIMUM STOPPING SIGHT DISTANCE BASED ON HEIGHT OF EYE OF 3.5 FT AND HEIGHT OF OBJECT OF 2.0 FT. CONSIDER BOTH HORIZONTAL AND VERTICAL ALIGNMENT.

(2) MINIMUM PASSING SIGHT DISTANCE BASED ON HEIGHT OF EYE OF 3.5 FT AND HEIGHT OF OBJECT OF 3.5 FT. CONSIDER BOTH HORIZONTAL AND VERTICAL ALIGNMENTS.

(3) NORMAL PAVEMENT CROSS SLOPES ON BRIDGES IS 2%.

(4) CONSIDER CURVE WIDENING ON PROJECTS WITH SIGNIFICANT TRUCK VOLUMES.

(5) WIDEN 3 FT FOR GUARDRAIL.

(6) WHERE SELECTED DESIGN SPEED IS > 50 MPH, USE COMMON GEOMETRIC PRATICES EXHIBIT 500-02 FOR RURAL COLLECTOR ROADS.

(7) DOCUMENT AND RETAIN JUSTIFICATION FOR A DESIGN SPEED LESS THAN THE REGULATORY OR POSTED SPEED IN THE PROJECT FILES.

(8) FOR ROADS < 400 ADT, REFER TO AASHTO'S "GEOMETRIC DESIGN GUIDELINES FOR VERY LOW-VOLUME LOCAL ROADS (ADT≤400)".

(9) FOR ROADS IN MOUNTAINOUS TERRAIN WITH DESIGN VOLUME OF 400 TO 600 VEH/DAY, USE 18 FT TRAVELED WAY WIDTH AND 2 FT SHOULDER WIDTH.

(10) MAY BE ADJUSTED TO ACHIEVE A MINIMUM ROADWAY WIDTH OF 30 FT FOR DESIGN SPEEDS > THAN 40 MPH.

(11) WHERE THE WIDTH OF THE TRAVELED WAY IS SHOWN AS 24 FT, THE WIDTH MAY REMAIN AT 22 FT ON RECONSTRUCTED HIGHWAYS WHERE SAFETY RECORDS AND ALIGNMENT ARE SATISFACTORY.